

THE LONG ISLAND SOUNDER



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President's Message

Dear ASHRAE Long Island Chapter Members,

As we move into February, I would like to take a moment to reflect on a strong start to the new year and share a few exciting upcoming events for our chapter.

First, I would like to extend a sincere thank you to Trane and Brain Box for an outstanding January technical presentation, "Using Advanced Analytics and AI to Move from Reactive to Proactive and Predictive." The discussion highlighted how advanced analytics and artificial intelligence are rapidly transforming the way we design, operate, and maintain building systems. The presentation was both insightful and timely, and we appreciate the effort and expertise that went into making it such a success.

Engineers Week: February is also an important month as we recognize Engineers Week, with the Long Island Engineers Week Seminar Series taking place on Thursday, February 12, 2026. This annual event celebrates the engineering profession and provides an excellent opportunity for professional development through a full day of technical seminars covering a wide range of disciplines. I encourage all members to participate, earn PDHs, and support this important celebration of our industry.

National Compressor Field Trip: Looking ahead, we are excited to announce an upcoming National Compressor Factory Field Trip on Wednesday, February 18, 2026. This tour will offer a behind-the-scenes look at large-scale compressor manufacturing, providing valuable insight into design, production, and testing processes that are critical to HVAC and refrigeration systems. Space is limited, so I encourage interested members to register early using the link on the ASHRAE Long Island website.

ASHRAE/ ASPE Annual Trade Show: Immediately following, I am pleased to highlight the ASHRAE & ASPE Long Island 3rd Annual HVAC & Plumbing Trade Show, taking place on Tuesday, March 10th from 2:00 PM to 7:00 PM at Westbury Manor, located at 1100 Jericho Turnpike, Westbury, NY. This premier industry event continues to grow each year and offers an outstanding opportunity for networking, education, and collaboration. Attendees can earn (3) PDH credits while enjoying a free open bar throughout the entire event, complimentary hot food, exciting raffles, and access to leading manufacturers and representatives from across the HVAC and plumbing industries. I strongly encourage vendors to sign up and showcase their products, and I urge all members and guests to attend and take advantage of this exceptional event.

As always, thank you for your continued involvement and support of the Long Island Chapter. Our success is driven by the dedication of our members, volunteers, and industry partners. I look forward to seeing many of you at our upcoming events.

Sincerely,
Matthew Catan
President
ASHRAE Long Island Chapter

MEETING PROGRAM

Attendees
Will Earn
1 PDH!



Geoff Parks

Fees:

Members - \$50 pp

Guests - \$70 pp

Students - \$15 pp

Date: Tuesday, Feb. 10th 2026

Time: 6PM-9PM

6:00 PM - Cocktails/Networking

7:00 PM - Dinner Presentations

8:45 PM - Conclusion

Location: *Westbury Manor*

1100 Jericho Tpke., Westbury, NY 11590

Directions are posted at @ www.ashraeli.org

Presentation Topic:

Large duct construction requirements and air duct leakage applicable to data center construction

Duct Leakage in Data Center Construction

Data centers demand precise airflow control, strict pressurization, and high system reliability, making duct leakage a critical performance risk. This presentation examines duct leakage as it relates to modern data center construction methods, with a focus on common leakage points, installation challenges, and their impact on airflow delivery, energy use, and system redundancy. The discussion will align with SMACNA fabrication and installation standards and best practices, highlighting proper sealing methods, leakage testing considerations, and the construction methods required to meet the performance expectations of mission-critical facilities.

About our Speaker:

Geoff Parks is a Senior Project Manager in the SMACNA Technical Resources department with over 30 years of experience in the sheet metal industry. His background includes completing a union sheet metal apprenticeship program and working in shop fabrication, CAD/BIM, estimating, project management, and senior leadership at a major East Coast sheet metal company.

Chapter Monthly Meeting - Program for 2023/2024

| | |
|---|---|
| <p>September 9, 2025* At Westbury Manor</p> <p>Dinner Presentation – ASHRAE 62.1 Understanding the Indoor Air Quality Procedure</p> <p>Presenter: Tim Boyd</p> <p style="text-align: right;">**1 PDH*</p> | <p>March 10, 2026* At Westbury Manor</p> <p>Long Island Trade Show</p> |
| <p>October 14, 2025* At Westbury Manor</p> <p>Dinner Presentations - VRF and The A2L Refrigerant Transition</p> <p>Presenter- Anthony Frizalone</p> <p style="text-align: right;">**1 PDH**</p> | <p>April 14, 2026</p> <p>Dinner Presentation— TBD</p> <p style="text-align: right;">**1 PDH**</p> |
| <p>November 4, 2025 * At Westbury Manor</p> <p>Dinner Presentation— Creating an Underground Research Facility to Explore the Universe</p> <p>Presenter- Darryl K. Boyce</p> <p style="text-align: right;">**1 PDH**</p> | <p>May 2026 * Cherry Valley Club, Garden City, NY</p> <p>ANNUAL GOLF OUTING</p> |
| <p>December 9, 2025 * At Westbury Manor</p> <p>Dinner Presentation—TBD **1 PDH**</p> | <p>May 12, 2026</p> <p>Annual Field Trip—TBA</p> |
| <p>January 13, 2026 * At Westbury Manor</p> <p>Dinner Presentation— TBD</p> <p style="text-align: right;">**1 PDH**</p> | <p>June 2026 * At Westbury Manor</p> <p>Free Buffet Dinner for Members</p> <p>PAST PRESIDENTS NIGHT & OFFICER INSTALLATION STUDENT SCHOLARSHIPS TO BE AWARDED ASHRAE History Quiz and prize Give-A-Ways</p> |
| <p>February 10, 2026</p> <p>Dinner Presentation— TBD</p> <p>Presenter: TBD</p> | <p>July 2026- TBD (4pm-8pm) * Dixie II @ Captree State Park Boat Basin, NY</p> <p>ANNUAL FISHING TRIP</p> |
| | <p>August 2026</p> <p>Chapters' Regional Conference (CRC) Region I GRANIT STATE</p> |

Long Island Chapter Officers & Committees

| ASHRAE 2024/2025 OFFICERS | | |
|---------------------------|-----------------------|---------------------|
| POSITION | NAME | EMAIL |
| President | Matthew Catan | c006@ashrae.net |
| President-Elect | Michael Razzano | c006pe@ashrae.net |
| Vice President | Zhiganag XU | c006vp@ashrae.net |
| Treasurer | Richard Smith | c006tr@ashrae.net |
| Secretary | Michael S. Gerazounis | c006sec@ashrae.net |
| Board of Governors | Thomas DiBenedetto | c006bog1@ashrae.net |
| Board of Governors | Pete Conte | c006bog2@ashrae.net |
| Board of Governors | Steven Gerazounis | c006bog3@ashrae.net |
| Board of Governors | Michael Nigro | c006bog4@ashrae.net |
| Board of Governors | Richard Smith | c006bog5@ashrae.net |

| ASHRAE 2023/2024 | COMMITTEES | |
|--|---------------------------------|-------------------------|
| COMMITTEE | NAME | EMAIL |
| Programs & Special Events | Michael Nigro | c006pe@ashrae.net |
| Membership (MP) | Michael Gerazounis | c006mep@ashrae.net |
| Refrigeration | Kenny Balci | c006ref@ashrae.net |
| Chapter Technology Transfer (CTTC) | Michael Razzano | c006cttc@ashrae.net |
| Government Activities (GGAC) | Rich Smith | 006ggac@ashrae.net |
| Newsletter Editor | Alexis H. Smith | c006ne@ashrae.net |
| Research Promotion (RP) | Peter Conte | c006rp@ashrae.net |
| Historian | Elizabeth Jedrlinic | c006his@ashrae.net |
| Student Activities (SA) | Katlyn Coolbaugh | c006sa@ashrae.net |
| Young Engineers in ASHRAE (YEA) | Steven Gerazounis | c006yea@ashrae.net |
| Webmaster | Frank Paradiso | c006web@ashrae.net |
| Nominating | Michael Gerazounis, PE, LEED AP | nominating@ashraeli.org |
| Reception & Attendance | Steven Gerazounis | reception@ashraeli.org |
| PR & Engineering Joint Council of LI (EJCLI) Liaison | Andrew Manos, LEED AP | pr@ashraeli.org |
| Golf Outing | Peter Gerazounis, PE LEED AP | golf@ashraeli.org |
| Awards | Brian Simkins | c006ha@ashrae.net |
| ASHRAE LI, P.O. Box 79, Commack, NY 11725 | | |

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Long Island Chapter - Past Presidents

| | | | | | |
|------|-----------------------------|------|---------------------------------|------|------------------------------------|
| 1958 | H. Campbell, Jr. PE | 1982 | Timothy Murphy, PE | 2006 | John Nally |
| 1959 | Clyde Alston, PE | 1983 | Leon Taub, PE | 2007 | Peter Gerazounis, PE, LEED AP |
| 1960 | Sidney Walzer, PE | 1984 | Raymond Combs | 2008 | Steven Friedman, PE, HFDP, LEED AP |
| 1961 | Sidney Gayle | 1985 | Edward W. Hoffmann | 2009 | Steven Giammona, P.E., LEED AP |
| 1962 | William Kane | 1986 | Jerome T. Norris, PE | 2010 | Nancy Román |
| 1963 | Louis Bloom | 1987 | Abe Rubenstein, PE | 2011 | Carolyn Arote |
| 1964 | Milton Maxwell | 1988 | Michael O'Rourke | 2012 | Brian Simkins, LEED AP |
| 1965 | Will Reichenback | 1989 | Mel Deimel | 2013 | Andrew Manos, LEED AP BD+C |
| 1966 | Joseph Minton, PE | 1990 | Robert Rabell | 2014 | Richard L. Rosner, P.E. |
| 1967 | Irwin Miller | 1991 | Gerald Berman | 2015 | Thomas J. Fields, P.E., LEED AP |
| 1968 | Walter Gilroy | 1992 | Donald Stahl | 2016 | Donald Kane, P.E. |
| 1969 | Charles Henry | 1993 | Ronald Kilcarr | 2017 | Andrew Dubel, P.E., LEED AP |
| 1970 | William Wright | 1994 | Jerald Griliches | 2018 | Richard Halley |
| 1971 | Louis Lenz | 1995 | Walter Stark | 2019 | Frank Paradiso |
| 1972 | Ronald Levine | 1996 | Joe Marino | 2020 | James Hanna |
| 1973 | Henry Schulman | 1997 | Norm Maxwell, PE | 2021 | Matthew J. Vitrano |
| 1974 | Myron Goldberg | 1998 | Alan Goerke, PE | 2022 | Murat Bayramoglu |
| 1975 | John N. Haarhaus | 1999 | Frank Morgigno | 2023 | Michael Nigro |
| 1976 | Richard K. Ennis | 2000 | Michael Gerazounis, PE, LEED AP | 2024 | Elizabeth Jedrlinic |
| 1977 | Kenneth A. Graff | 2001 | Ray Schmitt | | |
| 1978 | Evans Lizardos, PE, LEED AP | 2002 | Steven M. Stein, PE | | |
| 1979 | Albert Edelstein | 2003 | Andrew Braum, PE | | |
| 1980 | Ralph Butler | 2004 | Claudio Darras, P.E. | | |
| 1981 | Robert Rose, PE | 2005 | Craig D. Marshall, P.E. | | |





YEA


Hello everyone, I am your YEA chair, Steven Gerazounis. For all the new members if you are unfamiliar with the YEA committee, its purpose is to provide ASHRAE members 35 years old or younger with opportunities to network, educate and grow themselves through chapter events. Please check back regularly to the newsletter and on ASHRAE's website for all the news and opportunities available. I look forward to seeing as many of you as possible in the upcoming months at ASHRAE and YEA events!

At a chapter level, we have an upcoming factory tour on February 18th at National Compressor Exchange in Farmingdale. National Compressor Exchange has been serving the industry for decades as a full-service remanufacturer of replacement compressors, parts and solutions. Please use this link to register: <https://www.ashraeli.com/national-compressor-factory-tour-feb-18.html>

**ASHRAE LI CHAPTER'S
FACTORY TOUR**

  **National
Compressor
Exchange Inc.**

Factory Tour of National Compressor Exchange



**\$10
Students
& YEA** **\$20
General
Admission**

Date: Wednesday February 18th, 2026
Time: 5:30-8:00pm
Address: 5 Dubon Ct, Farmingdale, NY 11735

Food and Beverages will be provided

***Attendance is limited to 50 people.
Educational credit for those who attend.***

Sponsored by the YEA Committee

We have another great field trip in the works for May. Stay tuned for more details. On a Society level, ASHRAE offers many programs and events that can enhance the professional development of YEA members, such as Leadership Weekend, Leadership U, LeaDRS, ASHRAE Connect, and the HVAC Design Scholarship.

YEA Events



YEA Leadership Weekend 1.0

LEARN MORE



YEA Leadership Weekend 2.0

LEARN MORE



YEA Leadership International

LEARN MORE

YEA Programs



Leadership U

LEARN MORE



LeaDRS

LEARN MORE



HVAC Design Scholarship

LEARN MORE



Presidential Initiative Challenge

(formerly YEA Design Initiative)

LEARN MORE



ASHRAE Connect

LEARN MORE

<https://www.ashrae.org/communities/young-engineers-in-ashrae-yea/yea-events-and-programs>

Leadership U

If you wanted the opportunity to participate and follow regional and society officers there are two great options to do so! With Leadership U (4) YEA members will be selected for the winter or annual conference and attend all of their respective society officer's events, board meetings and social activities. Applications for the 2026 Winter Conference in Las Vegas are open now. Please use the link below to register and for more information.

<https://www.ashrae.org/communities/young-engineers-in-ashrae-yea/yea-events-and-programs/leadership-u>



2025 Winter Leadership U Participants

Mohammed Murtaza, ASHRAE Falcon Chapter, RAL

Kaustubh Deepak Wani, Pune Chapter, Region XV

Bin Lin, Macao Chapter, Region XIII

Steven Gerazounis, Long Island Chapter, Region I

<https://www.ashrae.org/communities/young-engineers-in-ashrae-yea/yea-events-and-programs/leadership-u>

LeaDRS

Similar to the Leadership U program, LeaDRS allows a region to select any ASHRAE member to shadow their Director and Regional Chair (DRC) at an ASHRAE Conference. To apply for this program you must contact the DRC directly. For Long Island that would be Charles Bertuch.

Region I : Mr. Charles Bertuch

Email: R01drc@ashrae.net

<https://www.ashrae.org/communities/young-engineers-in-ashrae-yea/yea-events-and-programs/ashrae-region-leads-program>

HVAC Design Scholarship

Are you looking for the chance to get a better grasp of the fundamentals and technical aspects to design, install and maintain HVAC systems? YEA has a fantastic program to cover all of those bases with an attendance scholarship for either level I or II training. Applications for this program will begin in October so please be on the lookout to take advantage of this opportunity!

<https://www.ashrae.org/communities/young-engineers-in-ashrae-yea/yea-events-and-programs/yea-scholarship-for-hvac-design-essentials-training>

Technical Committees

Are you looking to get more involved with your industry or ASHRAE as a whole? Take a look to see if there are any technical committees that interest you!

<https://ashrae.org/technical-resources/technical-committees>

Getting more involved gives you the opportunity to directly impact our industry and expand your knowledge base. To learn more about these committees you can also reach out via phone or email at:

404-636-8400

tcstaff@ashrae.net

YEA Awards

So many YEA members are deserving of awards for their hard work, dedication and faithful service to this society but don't receive them because people don't know they are eligible to be nominated. Please look into the numerous awards available for YEA members under the Honors and Awards tab.

<https://www.ashrae.org/communities/young-engineers-in-ashrae-yea/honors-and-awards>

For any awards that you cannot nominate yourself or another YEA member you may need to reach out to your YEA Regional Vice Chair, Society YEA Committee member or Director and Regional Chair to provide them with the information they require to submit a nomination form.

ASHRAE Connect

Are you a first-time attendee at the ASHRAE Conference, or have you attended before but felt overwhelmed by the many options? This new shadowing program offers the perfect opportunity to gain first-hand experience by following a member of ASHRAE through committee meetings and conference events.

Designed for ASHRAE members seeking to build stronger connections and deepen their understanding of ASHRAE's processes, this program aims to help you navigate the conference with guidance and insight from experienced members. By participating, you'll not only gain valuable knowledge but also feel welcomed in committee meetings, ensuring you have a seat at the table and a voice in the discussions that shape our industry.

[ASHRAE Connect](#)

ASHRAE Chapter Leadership Academy

Calling all future ASHRAE leaders! Are YOU interested in taking the next step and learning more about volunteering with ASHRAE? The YEA Committee is seeking engaged, active, and enthusiastic ASHRAE members to represent their regions at the 2026 ASHRAE Chapter Leadership Academy, March 6th – 7th at ASHRAE HQ in Atlanta. Attendees will gain a better understanding of how ASHRAE Society functions and obtain useful and practical knowledge essential for honing ASHRAE leadership skills. This program is specifically designed to provide an intimate learning experience for up-and-coming chapter leaders who have the potential to serve ASHRAE at the Society-level. To apply for this program you must contact the DRC directly by November 21st. For Long Island that would be Charles Bertuch.

Region I : Mr. Charles Bertuch

Email: R01drc@ashrae.net

Women in ASHRAE Leadership Symposium

The Women in ASHRAE Leadership Symposium is now accepting speaker proposals for a YEA Speaker Session. This unique event brings together women in HVAC&R and the built environment to share experiences, strategies, and inspiration around leadership, career growth, and resilience. Please use the link below for the Call for Abstracts;

[2026 WiA Leadership Symposium - ConfTool Pro - Login](#)



2025-2026 Presidential Initiative Challenge

The Presidential Initiative Challenge (previously the Decarbonization Challenge) is a year-long competitive fund (\$1,000 - \$10,000) program to implement projects within local chapters that are tied to the year's presidential theme. Bill McQuade has announced his presidential theme, Indoor Environmental Quality. This year's program will be centered around implementing IEQ projects. This program is implemented through the YEA committee with grass roots outreach through the YEA chairs/committees at each chapter. Applications for the program will remain open until November 3rd, 2025.

<https://www.ashrae.org/about/yea-presidential-initiative-challenge>

Please feel free to reach out to me with any questions or comments about YEA.

-Steven Gerazounis



Government Affairs

Electrification Only - My Comments

So, you say you want to go to all electric, well data centers may be a bigger problem than we ever thought. With advancements and AI, especially in the scientific arena and production, we are seeing exponential growth of data center build outs and power consumption in each region where those data centers are located. In some cases, the data centers are 6 to 8 times more than the single highest load in the region. It's not all bad news. Because of their massive hunger for power they realize they need to self-generate some of that energy and maybe even deploy stored power in Battery centers the size of buildings. How will this impact New York City and surrounding regions? ASHRAE is trying to work with the federal regulators to address that right now.

ASHRAE Resources at the link. [Click here](#)

Legislation to Modify DOE Building Energy Code

Updates Introduced

On November 21, Representative John James (MI-10) introduced H.R. 6264, "the Path to Affordable Homes Act." The legislation would change considerations for the Department of Energy (DOE) to make when reviewing updates to national model energy codes such as the International Energy Conservation Code and ASHRAE Standard 90.1. Under current law, DOE is required to analyze and determine whether a new edition of model energy code or consensus-based energy standard will improve energy efficiency. This legislation would require DOE to also consider five new criteria before a determination is made: cost-effectiveness, direct relation to energy efficiency, technological feasibility, grid reliability, and fuel neutrality. More information on the legislation can be found here. [DOE Code](#)

Cool and Exciting Development for the future

Nvidia Claims Hot Water can Cool Next-Gen Chips

In a [keynote speech](#) at Consumer Electronics Show, Jensen Huang, CEO of chipmaker Nvidia shared that its next-gen Vera Rubin chip systems, successor to their Grace

Blackwell systems, will be able to be cooled by hot water, up to 45 degrees Celsius (113 degrees Fahrenheit). This will remove the need for chillers in some circumstances, leading to energy efficiency gains for large data centers. Other tech CEOs **also shared** that they think that two-phase cooling systems, where water is both a gas and a liquid at different points in a water-cooling system, have reached a point of greater market viability. Manufacturers noted that systems that usually work without chillers are already common, as are systems where chillers only activate during especially hot days when free cooling is less efficient.

Richard Smith – GAC Chair.

006ggac@ashrae.net



Historian

“Those who forget their history are condemned to repeat it.”
George Santayana (Philosopher)

In the world of heating, ventilation, air conditioning, and refrigeration, history often guides our progress. The ASHRAE Long Island Chapter was established on a foundation of shared vision, technical rigor, and community support. This founding constitution, crafted with bold aspirations, laid down the fundamental principles and objectives that would drive the chapter’s mission over the decades to come.

This month’s article takes us back to the early days of the chapter’s formation, revisiting the foundational document that united local professionals around the shared goals of education, excellence, and industry advancement. The following page includes an excerpt from the ASHRAE Long Island’s founding constitution for your perusal.

Thomas DiBenedetto, PE
Historian



Sustainability

AI-Assisted Commissioning and Fault Detection: The Next Frontier in HVAC Sustainability

Even the most efficient HVAC system can underperform if it is poorly commissioned or left unmonitored after occupancy. Studies consistently show that buildings lose 5–30% of expected energy performance within the first few years of operation due to control drift, sensor failures, and operational changes. As New York pushes for aggressive emissions reductions under Local Law 97 and the Climate Leadership and Community Protection Act (CLCPA), ensuring systems perform as designed has become a sustainability imperative.

Artificial intelligence–assisted commissioning and fault detection (FDD) is emerging as a powerful solution—transforming commissioning from a one-time event into a continuous, data-driven process.

From Traditional Commissioning to Continuous Intelligence

Traditional commissioning relies on snapshots in time: functional tests, checklists, and manual trending. While essential, this approach struggles to keep pace with:

- Increasing system complexity
- Frequent space use changes
- Sophisticated control sequences
- Limited facility staff resources

AI-driven commissioning tools build on BAS data to continuously analyze system behavior, identifying deviations from expected performance long after the initial turnover.

What Is AI-Assisted FDD?

Fault Detection and Diagnostics (FDD) platforms use advanced analytics to:

- Compare real-time data against design intent and control logic
- Identify faults such as simultaneous heating and cooling, stuck dampers, leaking valves, and sensor drift
- Quantify energy, cost, and carbon impacts
- Prioritize corrective actions based on severity

Unlike rule-based alarms, AI-enabled systems learn normal operating patterns and adapt as conditions change—making them particularly valuable in dynamic buildings like offices, hospitals, and mixed-use developments common in the New York metro area.

Sustainability Benefits

AI-assisted commissioning directly supports sustainability by:

- Reducing energy waste: Eliminating hidden faults can cut HVAC energy use by 10–20%
- Lowering emissions: Improved performance helps buildings meet Local Law 97 emissions caps
- Extending equipment life: Early detection prevents unnecessary wear
- Supporting electrification: Heat pump systems rely heavily on correct controls—FDD ensures they operate efficiently under varying conditions

For buildings with limited capital budgets, AI tools often deliver faster payback than equipment replacement.

Applications in the New York Metro Region

AI-assisted commissioning is gaining traction in the region due to:

- Large, complex building stock
- High energy costs
- Regulatory pressure to document performance

Common applications include:

- NYC office towers using FDD to optimize chilled water and VAV systems
- Long Island healthcare facilities monitoring critical ventilation systems
- University campuses deploying campus-wide analytics for ongoing commissioning
- Multifamily buildings using FDD to identify tenant comfort and DHW issues

In many cases, these platforms integrate seamlessly with existing BAS systems, minimizing disruption.

Challenges and Best Practices

While powerful, AI-assisted commissioning is not a plug-and-play solution. Success depends on:

- Accurate sensor calibration and data quality
- Clear definition of design intent and sequences of operation
- Collaboration between engineers, controls contractors, and facility staff
- Proper training so operators trust and act on insights

ASHRAE Guideline 0 and Guideline 1 provide foundational frameworks that pair well with AI-based tools.



Refrigeration

Check out an interesting article regarding Refrigerant Choices and Challenges in Commercial Refrigeration. The article can be found via accessing the below link:

[Refrigerant Choices and Challenges in Commercial Refrigeration | ACHR News](#)

Refrigerant Choices and Challenges in Commercial Refrigeration

Today's low-GWP solutions move the industry forward, but each comes with trade-offs

The commercial refrigeration landscape is evolving rapidly, driven by regulatory pressures such as the AIM Act, which are accelerating the demand for low-GWP refrigerant solutions. Speaking at the recent FMI Energy & Store Development Conference in San Diego, California, Tom Wolgamot, principal at DC Engineering, shared insights based on his work with a wide range of end users who are actively evaluating and implementing these new technologies.

He noted that while low-GWP refrigerants such as CO₂, A2Ls, and propane all present viable paths forward, "they each have their own challenges."

Code-Friendly CO₂

Starting with CO₂ (R-744), Wolgamot said that the good news is that codes and standards are largely settled. "For CO₂, codes are not an issue. We have standard leak detection, ventilation, machinery rooms, easy-peasy stuff," said Wolgamot. That regulatory clarity has made CO₂ refrigeration systems increasingly popular, especially in supermarkets.

CO₂ systems do present some challenges, though. For example, leaks are fairly common, he said, and they are often caused by vibration or pressure relief valve pop-offs. And while manufacturers have made progress — such as fixtures rated for standstill pressures up to 90 bar — capacity ratings can still be a limitation in some applications.

"We're being told that capacity uses are the same, and then in some instances, we find out the capacities are not the same," he said. "So watch for that."

Another barrier is cost-effectiveness, particularly in smaller-capacity applications. The industry has largely come to terms with the cost of CO₂ rack systems, as well as distributed architectures, said Wolgamot. But as CO₂ systems are scaled down into lower-capacity applications, the economics become more challenging.

"We've still got the same high-side components that we have to pay for, manage, and maintain, but now we have a smaller Btu capacity to spread that over," he said. "So trying to make a CO₂ condensing unit cost-effective, as compared to an A2L unit or something similar, I think, is going to be a long-term challenge."

PControls can be another challenge with CO₂ systems. As Wolgamot noted, CO₂ systems generally perform very well once they're up and running — they're stable and reliable. When problems do occur, nine times out of ten, they're related to the controls.

"People don't understand the controls," he said. "There are layers of controls, controls that don't communicate with each other. Trying to get more transparency into just what the sequences are, getting controls to communicate better, I think, would go a long way."

Propane: Safety First

Propane continues to gain traction — particularly in self-contained case applications — thanks to revised charge limits.

"The self-contained fixtures can go up to 300 and 500 grams now, which is great," said Wolgamot. Even more promising, building codes allow up to 1,100 pounds of propane for field-built systems if using an outdoor application or machinery room, he said.

Despite that potential, market momentum has been slow.

"We're not seeing much of a demand for propane on the consultant side," noted Wolgamot. "Without much of a market demand, we're just not seeing a lot of components and availability out there."

Propane's biggest obstacle remains safety. While the A3 refrigerant is efficient and well-suited for self-contained systems, wider deployment depends on industry readiness to manage flammability concerns. As Wolgamot put it, "The big thing with propane is just the overall safety concern. It's hard to say whether it moves beyond the self-contained case application."

A2Ls Are Technically Ready

A2L refrigerants — such as R-454A, R-454C, and R-455A — present a middle ground between HFCs and natural refrigerants. They offer lower GWP and compatibility with familiar system designs; however, they are mildly flammable. That said, significant progress has been made in drafting codes and standards, and "we have pretty much what we need in order to deploy an A2L system," said Wolgamot.

The problem is that, unlike CO₂, A2Ls suffer from a lack of precedent. The industry has not yet established a true "standard of care," so engineers and contractors must rely on best practices and professional judgment rather than clear industry guidelines when designing these systems.

"There are not enough systems out there to say this is how you safely deploy an A2L system, because no matter how detailed the codes are in writing, there's interpretation required," said Wolgamot.

He added that this uncertainty drives caution, which means engineers and contractors may need to take a more conservative approach until a proven track record is established. The code landscape is also more complex than in the past.

"There are specific requirements for installation in the UL standards now. So you need to take the mechanical code, the ASHRAE standard, and then apply the UL standard on top of it. And each one has their own complexities."

For example, UL Standard 60335-2-89 restricts the installation of A2L indoor equipment based on minimum room size, which varies depending on the refrigerant used. Wiring diagrams will also play a critical role in A2L systems, particularly when it comes to integrating leak detection and the required safety responses. In addition, A2Ls introduce safety protocols for evacuation and charging, which differ from those used with traditional refrigerants.

“Trying to get the technicians comfortable with that is a big challenge,” noted Wolgamot.

He added that leak detection can be a particularly confusing issue for A2L systems.

“For clarification, there are actually two leak detection systems that are required now. There is the traditional occupancy exposure limit leak detector in the 300 to 500 ppm range in cooler boxes, and those are field-adjustable and configurable. And now we've got the lower flammability limit (LFL) leak detectors that will come on the coils or on the appliances, and those will be in the 15,000 to 20,000 ppm range. So, two different leak detection systems. One's field configurable, and one is non-adjustable in the field. And the location of those is super key.”

So Many Choices

With CO₂, A2Ls, and propane all presenting workable — but imperfect — options, the industry is left facing what Wolgamot calls an “abundance of options.” The challenge is not finding alternatives, but knowing which one to choose.

“We've done a huge job, I think, in advancing where we're at,” he said. “We almost have too many choices now.” Training, risk management, system design, and long-term regulatory stability will ultimately determine which refrigerants win a larger market share.

Until then, Wolgamot advised end users to be cautious.

“Make sure you're working with suitable partners,” he said. “If you get into a situation where you're working with somebody that is just wanting to do the bare minimum, cut corners, and just get it in, I'd be a little cautious on that.”

SIDEBAR: Can A2Ls Be Used for Retrofit Applications?

In the Q&A session following Wolgamot's presentation, an audience member asked whether A2L refrigerants could be used to retrofit existing A1 HFC systems in supermarkets — not in new installations, but as replacements in legacy stores. The moderator, Rajan Rajendran from Five Rivers Research & Consulting LLC, explained that while work is underway to make this possible, it is not currently allowed. “The short answer is not yet,” he said, noting that standards committees are developing safety and mitigation provisions that could eventually permit A2L retrofits, but EPA would still need to approve any changes. As of today, he said, “EPA only allows A2Ls in new systems.” Tim Anderson, director of principal engineering at Hussmann Corp., added that an addendum to ASHRAE Standard 15 is expected soon, which will outline requirements for converting an A1 system to A2L. “Understand that if this does come to pass and you can do these retrofits, it won't be a simple thing,” he said. “Essentially, the equipment into which the A2L is being retrofitted will have to meet all of the requirements of UL 60335-2-89 and ASHRAE Standard 15 for what a new A2L system would have.

So that may mean also retrofitting in leak detection sensors and making sure that the releasable charges are acceptable. It will also likely have to be evaluated by a nationally recognized testing laboratory, like UL or ETL.” In short, A2L retrofits are not currently permitted, but standards and regulatory pathways are under development. Even once approved, retrofitting will likely be complex, costly, and heavily design-dependent, which will likely mean more of a full-system conversion rather than a simple refrigerant swap.

-Kenny Balci



CTTC Corner: Exploring the Depths of Innovation (and the Universe)

This month's technical presentation takes us to new depths literally! We're diving 6,800 feet underground into SNOLAB, one of the world's leading underground research facilities, designed to detect faint traces of dark matter and cosmic phenomena. The presentation, "Creating an Underground Research Facility to Explore the Universe," will walk us through the extreme engineering challenges and innovations required to make science possible even beneath the Earth's surface!

Our speaker, Darryl K. Boyce, P.Eng., Fellow/Life Member ASHRAE, brings an impressive legacy to the table. As a past ASHRAE President (2019–2020) and a career leader in facilities management and sustainable design, Darryl has spent decades advancing energy efficiency and high-performance systems. From university campuses to cosmic laboratories, he's seen it all and somehow managed to keep both his hard hat and sense of humor intact!

After you come up for air from this month's technical deep dive, please take a moment to fill out our Region I Evaluation Form using the QR code below. Your feedback helps us shape future sessions, speakers, and topics that matter to you and yes, it's also your chance to tell us whether our jokes are improving or getting worse.

ASHRAE Region I Evaluation Form



And speaking of excellence, don't forget to nominate your firm's standout projects for the ASHRAE Technology Awards. Whether you've designed a system that saves megawatts or one that simply makes your commissioning agent smile, this is the time to showcase your work. These awards highlight practical applications of innovative technologies and celebrate the engineers who push our industry forward (preferably without breaking any pipes in the process).

Engineering, like the universe, keeps expanding and so does ASHRAE's reach. From the depths of SNOLAB to the bright minds in our own Long Island chapter, the drive to innovate, educate, and elevate continues.

Let's keep pushing boundaries together above ground and below!

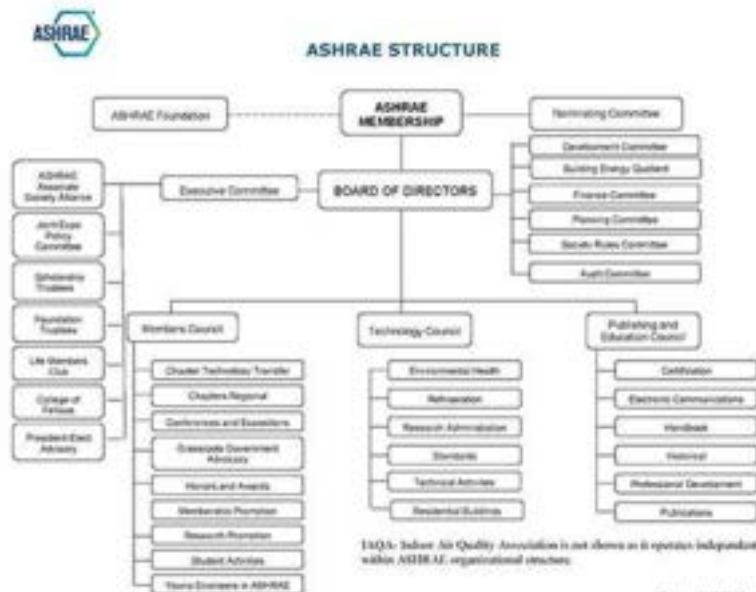
Michael H. Razzano, CTTC Chair – ASHRAE Long Island Chapter



Diversity, Equity & Inclusion

Exciting news in ASHRAE, the DEI advisory committee is transitioning to a Standing Committee in ASHRAE. They will continue to report to the board of directors for the time being, but they will now have their own POAE goals and directives. ASHRAE's committee structure is the mechanism that makes the Society run. Through this structure, members formulate policy, develop procedures, and direct Society activities. Decisions made by the Board of Directors are based on the recommendations of committees. Because of this, the Board of Directors is only as effective and efficient as the Society committees. New ideas and new programs are usually initiated in committees, which also serve as management training centers for future Society leaders.

ASHRAE Structure





Research Promotion

If we knew what we're doing it wouldn't be called research"
– Albert Einstein

I would like to thank the companies who have participated in the annual Product Directory of Manufacturers and their Representatives. The product Directory has been prepared as a service to all its members and as a service to the local HVAC industry. It will be made available to all ASHRAE and non-ASHRAE members at no-cost and can be obtained from our monthly meetings or directly from our website.

This year's overall research promotion goal is \$2,720,000 with many research projects on board. Our chapter is expected to raise \$56,987.00 towards the overall goal. I am hoping that I can count on the continued support of all our past contributors who have generously supported us over the years. I also look forward to gaining the support of new contributors this coming year. Last year we were successful in beating our goal and am hopeful that this year we can continuously raise the bar.

We are hosting the 2025 ASHRAE REGION 1 CRC and have sponsorship packages available.

Thank you to our contributors!
Individuals

Mr. John D. Nally
Mr. Peter J. Conte, PE
Ms. Elizabeth Jedrlinic
Mr. Kenny Balci
Mr. Steven Gerazounis
Mr. Murat Bayramoglu
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Mr. Frank Paradiso
Mr. Michael F Schiavo
Mr. James R Tauby, PE
Mr. James W Armstrong

Contributions can be made in the following ways:

Mail checks, made out to ASHRAE Research Promotion to:

Peter Conte

ASHRAE Research Promotion Chair

PO BOX 79

Commack, NY 11725

Hand check to me at any of the chapter meetings.

PayPal from the ASHRAE Long Island Website

Click Donate Button

www.ashrae.org

Please make sure you accredit the contribution to the Long Island Chapter 006





Student Activities

Hello everyone — and welcome to a brand new month of opportunity, growth, and connection! I'm honored to serve as your Student Activities Chair for 2025–2026, and I look forward to working with all of you to make this year one of our best yet.

This section of the newsletter will keep you informed about programs, events, scholarships, and ways to get involved. I also encourage you to share your ideas, projects, and successes — we want to spotlight your amazing work!

Spotlight on Hofstra University

One of our highlights this past few weeks has been the incredible momentum we've built with Hofstra University. We proudly helped establish Hofstra as an official ASHRAE Student Branch, expanding our student network and deepening our commitment to future professionals in the HVAC&R field. Our team has also had the pleasure of attending Hofstra's student branch meetings, where we've delivered talks about the value of ASHRAE — from scholarship and research opportunities to networking and career development. It's been inspiring to witness the enthusiasm and curiosity of Hofstra students, and we look forward to continuing our collaboration in the coming year!

ASHRAE Scholarships — 2026–2027 Cycle

Are you looking for funding to support your education while making an impact in the HVAC&R industry?

Through ASHRAE's Scholarship Program, we aim to support students pursuing degrees in engineering, technology, and related fields that contribute to sustainable built environments.

Key Details:

- Scholarships range from **\$3,000 to \$12,500**
- Applications typically open in **October**
- Awards are for the **2026–2027 academic year**
- Multiple categories available: Undergraduate, Engineering Technology, Regional/Chapter, and University-specific

I strongly encourage all eligible students to apply — I'll share reminders and tips once the application period opens.

[**SCHOLARSHIPS**](#)

2025–2026 High School Design Competition

Calling all students aged 13–18 who are interested in HVAC, design, or sustainability! This year's **High School Design Competition** is a fantastic opportunity to learn how to design a system for a hypothetical building while applying real-world engineering principles.

Important Dates:

- Submission Deadline: **December 30, 2025**
- Topic and guidelines will be posted in **early fall**

Form a team with friends from school or a local club, and bring your creative and technical skills to life!

[2025-2026 ASHRAE High School Design Competition](#)

Undergraduate Program Equipment Grants

For those working on senior projects or capstone designs: you may be eligible to secure funding for materials and equipment related to ASHRAE-relevant work.

Grant Highlights:

- For engineering, technical, or architectural programs
- Typically supports projects lasting one academic term up to one year
- **Application deadline:** December 15, 2025

About Undergraduate Program Equipment Grants

Get Involved

- **Leadership Opportunities:** ASHRAE offers society-level leadership development, mentoring, and committee involvement. Programs like Leadership U and LeaDRS are a great way to grow.
- **Contribute to the Newsletter:** Have you recently completed a research project, internship, or won an award? We'd love to highlight your achievements.
- **Branch Events & Webinars:** I'll be working with student branches to host local events, webinars, and mixers. Got ideas? Let's talk!

I'm truly excited to get this year underway and help make it meaningful for everyone involved. If you have questions, want to collaborate, or have suggestions for student engagement — please don't hesitate to reach out.

Here's to a productive, engaging, and inspiring 2025–2026!

Warmly,

Katlyn Coolbaugh

Student Activities Chair, ASHRAE Long Island

Certification



Certified

ASHRAE, accredited by ANSI under ISO/IEC 17024 for the High-Performance Building Design Professional (HBDP) program, has certified more than 2,000 Built Environmental Professionals.

Energy Assessment

Energy Modeling

Commissioning

Healthcare
Facility Design

High-Performance
Building Design

Building Operations

ASHRAE certification programs:

- Are developed by industry practitioners who understand the knowledge and experience that are expected for superior building design and system operation
- Assure employers and clients of subject mastery
- Serve as a springboard for continued professional development
- Offer an easy-to-apply process

FOR MORE INFORMATION GO TO - <https://www.ashrae.org/education--certification/certification>

Join ASHRAE on Social Media!



Social Media

Follow **ASHRAE** on **Twitter** @ashraenews for up-to-date news, events, and articles about HVAC&R. Search #MyASHRAE on Twitter to see member photos from around the world.

Follow us on [Twitter](#)



Most Popular Tweets

Does It Cost More To Build Green? Benefits include reduced operating costs & construction waste.

Online Thermal Comfort Compliance Tool Included In New ASHRAE User's Manual.

87% of households in the US have #AC, 5% do in India. India's tough choice on air-conditioning and climate.



The November issue of the Journal is tested for binding strength to see how many times a page can be turned before the binding would fail.

Harvard & SUNY Upstate Medical University find that workers are healthier and happier in certified green buildings.

ASHRAE Standard 90.1 has been redefining energy savings since 1975. A new version is available now.

Adapting historical buildings for sustainable reuse.

Get To Know ASHRAE





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